EDITORIAL NOTES.

The proceedings of the Congress on Tuberculosis, which we publish on another page, were reported in Edinburgh and Glasgow daily papers under the heading "Medical and Veterinary Congress." This is as it should be. An important question of general pathology bearing equally upon medical and veterinary science, can only be properly thrashed out by representations of both professions working together.

We all like public appreciation and lately the veterinary profession has had more than one opportunity of showing its importance. Each time it has risen equal to the occasion.

For as long as the oldest member of the profession can remember, complaints have been made that we were not appreciated by the public at our real value. Recently very little room for complaint has existed. Our authority has been accepted on the nature and means of prevention best adapted for freeing this country from contagious diseases among stock. Our opinions on comparative pathology have been asserted and even when in opposition to those of medical authorities have been proven correct. The Congress on Tuberculosis has revealed the fact that only a partial view of the subject is possible without veterinary aid, and that our observations and experiments are quite on a level with those made by medical specialists. One further step in proof of public recognition was made a little while since by a reference from the "Horse Commision" to the Royal College of Veterinary Surgeons, for advice and guidance as to the nature and definition of hereditary diseases in horses. The possibility of credit being obtained depends solely upon our utilising the opportunity, and supplying an answer in the form of a clear, definite and strong report. The matter rests with our Council, and we look to them for success. What steps have they taken? Possibly they have already acted, but unfortunately their proceedings are inaccessible to the profession except by patient waiting for the official quarterly reports, which are indefinitely delayed by having to be submitted to official editing. On July 26th a Council Meeting was held, but up to this date no one, save those present, knows what took place. The interests of the profession may be safe in the hands of the Council, but certainly more confidence in our representatives, and more interest in their work would be felt if their doings were promptly made public.

CLINICAL NOTES.

"Careful observation makes a skilful practitioner but his skill dies with him. By recording his observations he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of Pathological Science."

ŒSTRUS-NASALIS—OR WHAT?

By Professor Williams, F.R.S.E., F.R.C.V.S., etc.

During my experience I have met with several cases—7 or 8—presenting the symptoms described by "An Old Student," in your last number, and I have tried many methods of treatment such as fumigation with sulphurous acid, inhalation of medicated vapour, injection of parasiticides, such as solution of corrosive sublimate, turpentine, admixtures of sulphur and oil. Counter irritation over the sinuses, &c., but I am sorry to say without any good result. There is one remarkable phenomenon observed in all cases, that I have seen or heard of, namely, intolerance to the "bit." In one case the animal could do his work well enough without the "bit" in his mouth but immediately the "bit" was put in, he would commence to shake his head, become very violent, and would finally put his nose to the ground and there remain groaning with pain, until the "bit" was removed, the symptoms would then disappear.

I have never trephined as I have hitherto not been clear that anything very definite could be accomplished, but it is well worthy of a trial, and beg to suggest it should be done by "An Old Student" if his patient still continues "to shake his head and sneeze."

I may observe that in all cases the animals had been at grass before presenting the above symptoms.

ABSORPTION OF EXOSTOSES ON THE METACARPAL BONES (SPLINTS) OF A BAY GELDING—AGED ABOUT 10 YEARS.

By J. Sutcliffe Hurndall, M.R.C.V.S.,

Whether the subject of the following report will be deemed of much, or even any, practical value to the profession must be left for individual readers to determine for themselves, but as a clinical experiment it may perhaps be looked upon as a curiosity. The removal of splints, either by means of operative surgery or by absorption under the influence of a blister, such as the biniodide of mercury, is of course common practice; but both these measures usually result in permanent blemish, to avoid which with valuable horses is, certainly to the owner, a desideratum of importance. To explain that the writer is a staunch adherent of the School of Medicine known as Homœopathy is not a matter likely to excite any interest in the minds of so-called orthodox practitioners, but when it is stated, that the case under consideration is a genuine test of the law in therapeutics *Similia similibus curantur*, first enunciated by Dr. Samuel Hahnemann, well nigh a century ago, it is not unfair

to conclude that the most sceptical may herein find some food for reflection, especially bearing in mind that it is not the restoration of a mere functional disturbance, in some particular organ of the animal system to a normal condition, which if claimed, by a practitioner of Hahnemann's School—might by the majority of the far-famed orthodox school, and in all probability would—be attributed to Nature's recuperative power, rather than to the action of a drug. Here however we have to do with the removal by absorption of a foreign growth of hard, dense tissue clearly perceptible to both sense of touch and sight; about this therefore there can be no quibbling or doubt. The horse that was the subject of said exostoses on both metacarpal bones belongs to the London Omnibus Carriage Company, Limited, whose head office is 68, York Road, King's Cross. It is about ten years old, and was shown to me one day some three months ago very lame of both fore limbs. On examination I found a large splint on the inner aspect of of either principal metacarpal bone about one inch below the articulation of the knee, situated so much to the posterior that the flexor tendon pressed hard upon the exostoses, and these were evidently in consequence in a highly inflamed condition. It did not seem to me that the inner small metarcarpal bones were involved, but that the bony growth overlapped them in both cases. There was also a very large splint situate upon the outer lateral aspect of the metacarpal bone of the off fore leg, just anterior to the head of the small external metacarpal bone. I explained the case to my friend Mr. Shaw, the secretary of the company, and asked his permission to test, by way of experiment, a purely homœopathic mode of treatment, to which he promptly consented, and further instructed the yard-foreman to place a man under orders to carry out my prescription to the letter.

The mode of procedure was in itself simple enough, though it involved some labor. The agent brought into requisition was none other than a carefully prepared trituration of lava from Mount Hecla in Iceland, which was applied externally as an ointment, consisting of one part of the second decimal attenuation of the Hecla lava to six parts of pure lard, and for internal administration fifteen grain doses of the third decimal trituration were given dry on the tongue; the dose being repeated night and morning half-an-hour before feeding. Before applying the ointment, the parts were well fomented with hot water, then rubbed dry, and the friction while applying the ointment kept up for ten minutes at a time, the operation being repeated night and morning. In one week from the commencement the size of the splints was perceptiblydiminished; in at the end of the second week they were only just perceptible to the touch, and before the completion of the third week they were entirely absorbed. It will probably interest some to learn how this is accounted for, and in what way it serves to verify Hahnemann's discovery of a law in therapeutics.

Dr. Hughes in his Manual of Pharmacodynamics—a work which every earnest student of therapeutics would do well to study—says, "Hecla lava is, as its name imports, some of the matter which has issued from the well-known volcano of Iceland. Analysis shows it to consist of silica, alumina, lime and magnesia, with some oxide of iron. It was observed that the animals which fed in the the pastures where the finer ashes of the mountain fall, suffered from immense exostoses on the jaw-bones; and in some the cranial and other bones swelled and bulged out." This fact at once led up to the conclusion that if the lava was capable of producing in healthy animals these varied forms of exostoses, it should according to Hahnemann's law, *similia similibus curantur* be capable of curing an idiopathic exostosis, and this experiment I contend proves the surmise to be correct.

I may add that an officer of the Army, whose name I cannot recall, reported in the monthly *Homœopathic Review*, some years back, his experience with Hecla lava, which case was even more remarkable than the one herein reported, as he claimed to have absorbed not only splints, but also two large side-bones in a blood mare that he used for hunting in Ireland.

I conclude that inasmuch as one of tbe pathological effects of the lava is a swelling and bulging of cranial and other bones, the remedy might be advantageously given in osteo-sarcoma, and from Dr. Gilchrist's experience, as related by Dr. Hughes, this undoubtedly is the case with the human subject. I also learn from the same source that Dr. Garth Wilkinson found it to act with magical effect in several cases of toothache, and in swellings about the jaws, also in gum abscess from decayed teeth. Dr. Holcombe also administered the agent "with much benefit in neuralgic pains remaining after tooth extraction, and in ostitis affecting the lower maxilla.

This accumulation of evidence serves to prove that this agent has a remarkable influence upon the more solid tissues of the body, both among human subjects and lower animals; it is distictly endowed with disease producing capabilities, and not less with the power of curing the very pathological condition it is capable of producing in the healthy subjects. It would no doubt be highly amusing, if not edifying, to hear what the *Lancet* or the gentlemen who signed themselves R. B. C. and J. C. B. in the *Odium Medicum* controversy wbich appeared in the *Times* a short while ago, would say to this experiment; but I may pretty confidently anticipate that either one of them would find some reason (?) satisfactory to themselves if not supported by logic that would negative the the view I take. Those who, without ever having honestly tested the subject, have already made up their minds that no such a principle as a therapeutic law for the selection of drugs in disease, can exist, are almost certain to ridicule the possibility of reducing an exostosis by the means of such highly dynamised preparations as those used by myself; at the same time how will they account for the disappearance of the splints in an old horse, just at the time when the means herein recounted were being applied; will it be said tbat the splints went away of themselves; or that the friction—independent of the lava—caused them to disappear; did any one ever know of a case where splints in a horse ten years old, disappear in three weeks, of themselves or by mere friction? if not, then surely I am justified in claiming the credit of this cure by Hecla Lava and

Dr. Samuel Hahnemann the discoverer of the principle which guided me in the selection of the drug for this peculiar pathological condition.

Then, if the law in drug selection which Hahnemann claimed to be a general one, and which this case proves to be a true law as affecting such a tissue of the body as bone, succeeds under circumstances, which, the most sceptical must admit, are most adverse, let me ask, is there anything very remarkable in the fact that against overwhelming odds, and the conjoint influence even of the whole orthodox medical and veterinary professions the followers of Hahnemann have maintained an even way, for it may be truly stated that daily numbers of those that believe are being added to the school; I therefore conclude with the enquiry, how can any earnest scholar of medicine conscientiously avoid a searching and thorough examination of the principle involved in the foregoing case?

A CASE OF TETANUS.

By H. Kidd, F.R.C.V.S., Hungerford.

The peculiarity of this case is, that it occurred in a shire bred cart colt foal, at the age of 18 days. On the evening of June 14th last, this foal was observed by the owner to move rather stiffly, but this was supposed to have been due to cold after sporting about. Next morning, he was thought to be about the same, and was not seen again until the following morning (16th), when I received a message to go to see this young animal.

I found him in a meadow with his mother, his tail was somewhat erect and turned towards the off-side, he had a straggling gait and walked with difficulty, his fore legs being straight. His head and neck were slightly elevated, the head being stretched forward, with a constant champing of the jaws and discharge of saliva; his loins were bent slightly downwards. I ordered him to be taken to a loose-box and here examined him minutely. The pulse was firm, but of a jerky nature, respirations were much increased, and the temperature one degree below the normal. On elevating the head with the hand, the characteristic protrusion of the Membrana Nictitans over nearly the whole of the eye, was well marked.

After stating my diagnosis to be Tetanus, the owner expressed surprise that the foal should have been able to suck without any apparent difficulty, which he continued to do until within a few hours of his death. When I visited him again in the evening, there was no appreciable difference in the symptoms, and no action of the bowels. On the following morning, the pulse was quicker and weaker, respirations much increased, and the temperature $1\frac{1}{2}^{\circ}$ above the normal. These conditions I attributed to the sheep skin on the loins, which I at once removed, there was still no action of the bowels. In the evening I found the pulse weaker and slower, and the respirations considerably decreased from what they were in the morning, the temperature being normal; he was not able to get up now without assistance. On the following morning I found him much weaker, and not able to stand without being supported, he had no inclination to suck now, nor had any fœces passed. Shortly after this he died.

I was pressed to state the cause of the foal being attacked with Tetanus. I gave it as my opinion that it was due to intestinal irritation from partaking of indigestible herbage, or probably more correctly, from the digestive organs being unable to assimilate the herbage consumed, owing to the youth of the animal, and combined with exposure to extremes of atmospheric influences—the weather being mild during day, but bitterly cold at night. On making a post-mortem examination; the heart, lungs and kidneys were healthy. The liver was enlarged and friable, the stomach contained a small quantity of coagulated milk, together with some half-masticated grass; the colon contained a quantity of undigested material, which was hard and dry.

With respect to the treatment, had I been successful in saving the foal, I would have given it in detail, but seeing the termination was unfavourable, it will suffice to say that I was disappointed to see no therapeutic action from the large doses of medicine prescribed, which were administered without any difficulty. The strong Purgative did not operate. The Belladonna extract from which I expected good results, was administered in the form of an electuary. Oleaginous and other enemas were given at regular intervals. Subcutaneous injections were also given, but none of these had any visible effect whatever.

A PREVENTATIVE FOR SORE SHOULDERS.

By C. T. Bray, M.R.C.V.S.
Veterinary Surgeon to the London Road-Car Company.

Those who are connected with large studs of working horses will agree with me that there is nothing more troublesome than sore shoulders; especially is this the case where the saddlery department is cut so close that individual horses do not receive the attention they should have. It is easy for one unconnected with a company of this kind to say "rest your horse, ease your collar, use a breast strap or a false collar, and it will soon be well." Practically, I find, what with weight of vehicle, sweat, dust and tender skinned new horses, that even the most careful, supervision fails to prevent injuries with the attendant loss and annoyance.

Quite recently a new collar has come under my notice, experience of which enables me to say it is most serviceable. This collar is the same shape as usual, but instead of being filled with the ordinary stuffing, it is inflated with air. The pliability thus given allows the pressure of the shoulder to be diffused, and thus the horse, in draught, fits himself immediately to the collar. It is practically a macintosh collar, covered with leather. It is self-inflating sufficiently for use, but by blowing

through a valve at the apex of the collar may be rendered as tight as a drum-head. It is exceptionally light, and I think, well adapted for the breaking in of young horses. The fore-whale is the same as in all collars, thus maintaining its shape. It is indistinguishable from the ordinary collar in work from outside appearance. I trust this may be useful to some of the readers of "The Record." It is supplied by the "Alpha" Air Horse Collar Company.

[Ed.—The above cut is from a block lent by the Company.

MEDICAL SOCIETIES.

MEDICAL AND VETERINARY CONGRESS ON TUBERCULOSIS.

The Congress assembled at Paris, on July 25th, in the Amphitheaere of the Faculty of Medicine. For the first time in history the members of the medical and veterinary profession met *en masse* on a common platform to discuss a subject of major importance to both professions and of universal interest throughout the civilised world. The Congress included in its membership representatives of almost every civilised country in the world, and in approaching the entrance to the Faculty of Medicine each stranger could descry a welcome extended to him by the display of his national flag over the gateway.

Dr. Chauveau, member of the Institute, Professor at the Museum of Natural History, and Inspector-General of the French Veterinary Schools, was elected president; and Professors Villemin and Verneuil vice-presidents. In the afternoon Dr. Chauveau opened the meeting by a frequently applauded address of great eloquence and considerable length. He sketched the medical history, ancient and modern, of tuberculosis, referred in eloquent terms to the contagious views exhibited by the illustrious Morgagni, to the suspicions of Andral and of Laënec, until arriving at our own time, the works of Villemin and Kock had placed the contagious nature of the disease beyond further dispute. Then he mentioned the work of the Lyons School, in which he had himself been the first to demonstrate the transmissibility of human tuberculosis to the bovine species by ingestion. The identity of the human and bovine tuberculosis and of the tuberculosis of other animals was, as the result of the Lyons and other experiments, no longer disputed, and this transmission of disease from one species of animal to another was full of practical consequences. It was for that reason that veterinary and medical men were to-day invited to search out the measures of protection to be adopted against the further invasion of this dreadful scourge.

Professor Verneuil said:—

The present congress is distinguished from all its predecessors, as has already been remarked by our President, by the limitation, very narrow in appearance, of its subject, but it differs still more from all the others by its origin and by the composition of its members. It is certainly not the first time that collaboration has been established between medical men and veterinarians, and, to cite only one example, it suffices to mention the remarkable articles on glanders and rabies, written by Bouley and Bronardel in the Encylopædia of Dechambre. . . . Comparative pathology is a common field which you have seen in these latter years cultivated with great lustre by Bouley and by Vulpian; and yet it is certainly to-day that for the first time we are met, not in detachments, but united in cohorts, and combining our efforts to study one of the too numerous diseases having the fatal power of decimating man and his servants, and capable of transmission from the one to the other.

Having inaugurated this new departure, it was to be hoped that the question of tuberculosis would soon be determined, and that, continuing in this good path, they would continue to meet for the solution of important questions in connection with other diseases, such as diphtheria, septicæmia, parasitism, tetanus, &c. He then proceeded to give details as to the origin of the Congress, from which it appeared that it was due to the solicitations of a country practitioner in veterinary surgery, M. Butel, of Meaux, who first entertained the idea of a reunion of the professors and practitioners of both professions for the study of the disease. He terminated his discourse in words of which the following is an almost literal translation:—

Gentlemen, if I mistake not, the present is a day of good augury, and of which you will retain a pleasant remembrance, for to-day in France, at Paris, this modern Babylon, we loudly proclaim the unity of medical science, we further proclaim the equality of those who cultivate it, and we show the fraternity which exists among all its representatives."

Professor Cornil (of Paris) then made a most interesting communication on the penetration of the mucous membranes by the bacillus tuberculosis without the previous existence of any lesions on these membranes.

Experiments conducted in his laboratory had given the following results:—After the injection of a single drop of culture of the bacillus tuberculosis into the pharynx, very visible tubercles appeared on the walls of the intestines, although the animals experimented on presented no diarrhœa. The superficial epithelium remained intact *in situ*. Peyer's glands were tumified, and there could be observed between the *culs de sacs* of the glands of Lieberkühn accumulation of lymphatic cells. Lesions of the lymphatic ganglia were observed, dating from the sixth day after the injection of the drop of culture, but the bacilli were not easily distinguished until on and after the 20th day. They could then be found either in the free lymphatic cells, in the epithelial cells, or in the connective tissue of the villi.

After relating cases in the human subject where post mortem examination revealed tuberculosis lesions of the uterus, difficult to account for except upon the supposition of direct local infection, the Professor continued.

He then introduced into the vagina of rabbits several

drops of a culture of tubercular bacilli, and thus studied from the commencement the lesions produced. At first there can only be observed the usual lesions of catarrh of the neck, but when twelve days from the date of inoculation have expired the microscope reveals tubercular follicles, accumulated at the free-extremity of the villi and in the depressions of the arbor vitæ, although the epithelial investment of the mucous membrane conserves its integrity. After thirty days the tubercular lesions were generalised to the neighbouring tissues. A minimum quantity of culture, therefore, introduced into the genital tract without traumatism suffices to determine lesions histologically identical to those in the cases referred to above. In consequence, he concluded that tubercular infection of the uterus by the genital organs is possible even with a minimum quantity of tubercular sperm. The investing layer of the vagina, of the urethra, and of the bladder, although more resistant, can, as M. Babés and himself have shown from migratory cells containing bacilli, be penetrated through the layer of stratified epithelium.

M. Nocard (Alfort) said the question of the dangers to which we are exposed from the flesh and the milk of tubercular animals is certainly not new; and since the experiments of Chauveau, of Gerlach, of Bollinger, &c., there has not been a congress at which the question has not been agitated. As to the milk everyone is agreed, and as tubercular lesions of the mammary glands are often very difficult to recognise, we must act as if they were always present. It can scarcely be too often repeated that in large towns milk should always be boiled before it is used, and it is necessary to absolutely interdict the sale of the milk of tubercular animals. If the use of raw milk should in any case be indicated, goat's milk should be used, for I do not know a single example of a goat contracting tuberculosis. The consulting counsel on epizootics have obtained from the counsel of the State the promise that tuberculosis shall be considered as a contagious disease, and assimilated to anthrax, swine fever, &c. Every diseased animal shall be placed under the surveillance of a veterinary inspector, isolated and sequestrated. Its flesh shall be excluded from use if the lesions are generalised, if the lesions have invaded the greater part of a viscera, or if they have extended beyond its afferent lymphatic ganglia. The skin may be used, but after previous disinfection. Lastly, the milk may be used on the establishment for the alimentation of the domesticated animals, but only after boiling. For my own part I believe those measures to be sufficient, particularly after the series of experiments which I have already communicated to the Central Veterinary Medical Association, and from which it appears that the juice of the flesh of tubercular cows is only rarely capable of producing tuberculosis. In 40 guinea-pigs inoculated with a cubic centimetre of the juice of the flesh taken from 21 consumptive cows, one only died 59 days after the inoculation. It seems, then, that tuberculosis may in some cases be a generalised infectious disease *(totius substantiæ)*, but, again, that generalisation may be very transient; the blood and the muscle juice rapidly cease to be virulent. I believe that the measures adopted are sufficient, and that it is not the use of tuberculous meat which is to be regarded as the cause of the increasing frequence of tuberculosis. Finally, it may be said that the use of the flesh of tubercular animals presents some dangers, but that these dangers are exceptional, and that when they exist it is in a feeble degree.

M. Arloing said—I believe that it is possible to obtain the extinction of tuberculosis by reforms in the sanitary measures—if, on the one hand, tuberculosis be included in the contagious diseases, and, on the other, if prohibition of the use of flesh of tubercular animals be adopted, until at least, a practicable means of rendering their flesh uninjurious has been found. Respecting the use of the flesh I am much more rigorous than M. Nocard. I cannot very well understand how the milk is, according to that eminent observer, more dangerous than the flesh. My colleague relies upon his personal experiments. In 10 series he says he has only obtained one case of infection by inoculation of the muscle juice of tubercular animals, but M. Chauveau and myself have obtained very different results, for once in two series we obtained tuberculosis. M. Galtier obtained five positive results in 22 series, thus *en resumé* in 34 series or groups of animals (including M. Nocard's) tuberculosis has been determined seven times, that is to say, in one-fifth of the cases the bacillus tuberculosis was found in the muscular tissue. It has been said that the bacilli are rapidly destroyed by the muscular juice, but in tubercular animals there are lesions from which the bacilli are being incessantly injected into the circulatory torrent. There is nothing to show that the flesh of fat tubercular animals is less virulent than others, I believe that they are more dangerous than the others, for their meat is frequently placed on our tables with the blood oozing from it. Besides, even the temperature arrived at in the thorough cooking of meat (rarely attaining 70 degrees C.) is, as has been shown by M. Chauveau and myself, quite incapable of killing the bacilli.

Dr. Bang, of Copenhagen, spoke in the same direction as Professor Arloing, and added a most interesting communication on the infective properties of the milk of consumptive women, and of tubercular cattle. He showed that for the destruction of the bacillus even in the liquid medium (milk) it was necessary to submit it to a temperature of 75 degrees centigrade, and that for not less than five minutes. M. Baillet, veterinary surgeon, Inspector of meat at Bordeaux, was of opinion that meat as an agent of transmission of the disease played a very minor part, and that too severe measures were prejudicial to agricultural and commercial interests, and approved only of the condemnation of cases in which there was generalisation of the disease. M. Butel, the promoter of the Congress, strongly condemned the opinion and action of M. Baillet, and insisted that the interests of commerce and agriculture were of less importance than the welfare of the general public, He believed, however, that proper sanitary measures could not be universally adopted without money, an indispensable condition being to provide compensation for the persons whose animals were seized. As to the milk, M. Butel, agreed with the

opinion already advanced, that there should be a special veterinary supervision of dairies, inspection of the milk of suspected animals, and their slaughter and destruction (chemically) on the suspicion being confirmed. Animals under suspicion should meantime be separated.

Mr. Archibald Robinson, of Greenock, said that it had not been his intention to take part in the discussion, but that, as the members of the Congress would probably be asked to vote on the question of partial or total condemnation, he desired permission to say a few words. Since 1865 his father had been in the habit of condemning all tubercular animals, except those in which the disease existed to the most limited extent, and in these he rejected the internal organs and viscera. He had himself had the privilege of witnessing the experiments of the Professor Saint-Cyr at the Veterinary School of Lyons in 1873 and 1874, and on his return to Scotland in the latter year, had made representations to the municipality, with the result that all animals, no matter how slightly affected, were condemned absolutely. From careful examinations during the last fourteen years, he considered himself justified in affirming that in his part of the country at least, localised tubercle, if such could indeed be pathologically considered to exist, was altogether exceptional.

In view of the action which would probably be shortly taken in England, he urged on the Congress, if a vote was taken, not to take a step so retrograde as to countenance partial condemnation. Far better that a hundred carcases should be lost than that a single human being should be infected with tuberculosis, particularly considering the ulterior consequences to his family and other persons with whom he might come into intimate contact. As the public were the individuals to benefit from these condemnations, he considered that the expense of compensation should be met by universal taxation. Mr. Robinson's remarks evidently met with approval on the part of almost all the members of Congress; and after a number of others had given expression to similar views, the following resolution was carried, three members only dissenting:—

Science having demonstrated that tuberculosis can be transmitted from animals to man by the injestion of meat, it is necessary to adopt total seizure of the flesh of infected animals, and to compensate the proprietors of the meat seized.

Dr. DE BRUN, Professor of the Faculty of Medicine at Beyrout (Syria), referred in his paper to the antagonism which seemed to exist between malarial infection and tuberculosis. The natives of that country, he said, are almost exempt from tuberculosis; on the other hand, tubercular subjects, whether sent for their health on account of the mildness of the climate, or contracting the disease after their arrival in the country, develop the disease with a rapidity of evolution quite unknown in France. The importation of the disease to Syria coincides with the augmentation of the population and the draining of the country, and it may be affirmed that tuberculosis only made its appearance on the disappearance of malaria. Persons in comfortable circumstances, and least exposed to malaria, are those in whom tuberculosis is mostly seen. M. PIOT, veterinary surgeon at Cairo, had made similar observations in Egypt to those of M. de Brun, in Syria. The negroes living in the south are most subject to tuberculosis, In animals tuberculosis is rarely met with, but in the cases which do occur the evolution of the disease is of an extreme rapidity.

MM. CHANTEMESSE and VIDAL communicated a series of interesting experiments, showing the length of time the bacillus tuberculosis and its spores retained vitality in water taken from the Seine, the result being that in water previously sterilised, and maintained at a temperature of from 8 to 12 degs. C., they continued alive for fifty days. In water similarly dealt with, but kept at repose, they were still alive at the end of seventy days.

M. ARLOING stated that MM. Galtier and Cadiac, of Lyons, had made experiments with the same object. M. Galtier placed tubercular fragments in running water in which the temperature varied from 15 degs. to 6 degs. C. With this treatment the tubercular fragment had conserved all its virulence at the end of fifteen days. M. Cadiac found that in running water virulence was conserved for a month and a half, and that in water at repose virulence was proved by successful inoculation after 120 days' submersion. An inoculation 123 days after submersion gave a negative result.

M. ROBINSON, Constantinople, said he was attached to the hospital there, and in a total of 400 patients, from the 1st October, 1885, to the 1st October, 1887, 40 were phthisical patients; consequently, tuberculosis was not so rare in Asia Minor as had been supposed. In certain parts of Cappadocia tuberculosis was pretty common, and in several villages was remarkable for its hereditary transmission in certain families. In the mountainous districts around Sauras tuberculosis attacked the population in the proportion of 1 in 50, notwithstanding the fact that they were shepherds, living in the open air, and whose nourishment consisted of milk and wheat and rye bread. These conditions might be considered highly unfavourable to the production of the disease. The explanation, he thought, however, was to be found in the fact that they sold the best of their cattle, and killed and eat the poor and diseased animals themselves. He concluded that the prevalence of tuberculosis in people so situated must depend on the ingestion of tuberculosis milk and meat.

M. CAGNEY, of Sentis, made an interesting communication of a recent observation he had made on an outbreak of tuberculosis in a poultry yard. The lady who owned the poultry yard died of phthisis, and her son had just returned, much improved in health, from the south of France. It appeared that this youth had been in the habit of amusing himself by coughing and spitting for the delectation of the fowls, who immediately surrounded him and fought over his expectorations, which they rapidly devoured. M. Cagney had the fowls destroyed and the poultry

yard thoroughly cleansed and disinfected, and so far no further case had occured.

M. DE TOMA communicated an interesting paper on the modes of distribution of the bacillus in the system, shewing that there was first infiltration of the tissues surrounding the point of inoculation, from which the bacillus was carried by the lymphatics to distant organs. MM. STRAUS and WURTZ made a communication on the influence of the gastric juice on the bacillus tuberculosis. From a number of carefully-performed experiments which they had made it appeared that the gastric juice is capable of killing the bacillus tuberculosis in six hours, but that the bacillus conserved its virulence for over five hours.

Space will not permit us to follow the proceedings throughout. The communications, during the entire week, were devoted to the following subjects :—

I. The dangers which accrue from the use as food of the flesh and milk of tubercular animals. The means of preventing them.

II. The respective aptitudes for the development of tuberculosis in man, animals, and organic media.

III. Modes of introduction and of propagation in the economy of tubercular virus. Prophylactic measures.

IV. Early diagnosis of tuberculosis in man and animals.

Between 70 and 80 communications were made on these subjects by many of the most celebrated men in both professions and from all parts of the world, and on Tuesday, the 31st July, this most successful Congress terminated its proceedings by voting the following propositions :—

I. "There ought to be placed in the attributions of the hygienic councils all the questions relating to the contagious diseases of the domesticated animals, comprising all which do not at present seem transmissible to man. To vaccinia, glanders, rabies, anthrax, tuberculosis, there might indeed be added later other common infectious diseases requiring equally a common protection."

II. Every possible means should be adopted, comprising compensation to parties interested, for the general application of the principle of seizure and general destruction in totality of all flesh belonging to tuberculous animals, no matter how slight the specific lesions found in such animals.

III. Printed simple instructions should be distributed in the towns and throughout the country indicating the means necessary for the protection of the people from the dangers of tubercular infection from food, particularly from milk, and how to destroy the germs contained in the expectorations of the phthisical. M. GUINARD proposed to extend these instructions to linen, clothes, and objects used by the tubercular subjects. The proposition, thus amended, was unanimously adopted.

IV. It is necessary to submit dairies to a special surveillance, so that it may be ascertained that the cows are not affected with contagious disease capable of communication to man. (Unanimously adopted).

The next Congress was fixed to meet two years hence. M. Villemin was voted president for the next Congress amidst deafening applause. After the usual votes of thanks, the session closed.

On Monday evening the 30th, the foreign members were entertained to a grand banquet in the Hotel Continental by their French confrères. At this banquet one of the State officials deputed by the Minister of Agriculture made an eloquent speech, in which he referred to the interest with which the Government were following the deliberations of the Congress, and how desirous they were to act up to the latest indications of science for the extinction of tuberculosis.

It only remains to be added, and that with the greatest satisfaction, as being the first step in the right direction, that the French Government during the sitting of the Congress officially announced in the newspapers the addition of tuberculosis to the Contagious Diseases (Animals) Act. May we soon be as fortunate in Great Britain.

BRITISH MEDICAL ASSOCIATION.

PUBLIC MEDICINE SECTION.

TRANSMISSION OF DISEASE FROM ANIMALS TO MAN.

Dr. LITTLEJOHN intimated that the subject of discussion for the day was "the communicable diseases common to man and animals, and their relationships." Dr. Fleming, he said, was to have opened the discussion by reading a paper, but unfortunately he was detained by very serious illness, and the Council had to throw themselves upon the generosity of another authority on the subject—Principal Walley, of Edinburgh—and with the sanction of those present he would call upon him to speak upon the subject. (Applause.)

Professor WALLEY said that anthrax stood in the forefront of all maladies of the class which had to be discussed. He knew it was not the disease which was at the present moment occupying the minds and attention of sanitarians, but it was a most deadly one, and it was rapidly communicated from animals to man, and that too, in a variety of ways. Bearing upon anthrax there was a certain amount of legislation, and therefore the disease had so far passed out of debateable ground. The regulations, however, were deficient in respect that they were to a very large extent permissive, and not uniform over the whole country. In 1881 seventy dogs and two horses in Edinburgh came under his personal observation as suffering from rabies. No action was taken by the Corporation until two human lives were lost, and then the advice was taken that had been previously profferred, and the result was that in less than three months the disease was stamped out. If that disease could be stamped out of Edinburgh in three months, it could be stamped out of the whole country in from six to twelve months. (Applause.) Rabies was now also included in the Contagious Diseases (Animals) Act, and could therefore be said to have passed out of the realm of discussion to an extent. The malady which at present occupied the forefront in this connection was tuberculosis. That disease ought to have been recognised as com-

municable from animals to man many years ago; and it should be dealt with as one of the greatest pests to humanity, and also as one of the greatest pests to the animal creation. He had not the slightest hesitation in saying that it was communicable from animals to man and back again from man to animals in every possible shape and form. It was communicable without any doubt by ingestion, by inhalation, and by direct inoculation, and probably in other ways that they knew little of. There were probably more deaths produced by this disease than all the zymotic diseases put together. When he told them that out of thirteen animals that were slaughtered in the Edinburgh Slaughter-house some two or three months ago on account of pleuro-pneumonia, there were no fewer than six affected with tuberculosis, two of which were as bad cases as he had ever seen, they would have some notion as to the extent of the disease amongst animals. Since that time the authorities had slaughtered another lot of eighteen, and they had found exactly the same thing there. Two of the animals were badly affected, and a number of them were in the early stages of tuberculosis. The disease was simply slaughtering poultry by thousands in all parts of the country, and it seemed to be a remarkable fact that, despite the high temperature of birds, it ran a very much more rapid course in poultry than it did in animals, and killed them with more certainty. In his opinion the disease might be transmitted by eggs. If there was not any actual proof, there was a vast amount of indirect proof of the transmission of disease from animals to man. He himself stood in this position that he believed he lost, when he came to Edinburgh in 1874, a child from drinking the milk of an animal affected with tuberculosis. One of the veterinary officers of the Government had within the last few years lost a child under exactly similar circumstances, and pointing to the same conclusion. These were only two of many instances of this kind. At the present time there was positively no power given to veterinary inspectors to deal with animal tuberculosis. It did not matter what the condition of the cow was from which milk was taken day by day for the purpose of consumption by man, it did not matter what was the condition of the animal exposed in the public fairs or markets, there was positively no power in Scotland, and to a large extent in England, to enable any official to take charge of those animals. The milk, he did not think, could be affected where the udder of the animal was not affected by the disease. Principal Walley concluded by moving "That the Public Health Section of the British Medical Association approves of the action of the Government in inquiring by Commission into the relationships of bovine and human tuberculosis, and urges that as soon as possible such measures be taken as the report of the Commission might show to be advisable; that copies of this resolution be forwarded to the Prime Minister, the Secretary for Scotland, and the Lord Advocate." (Applause.)

Dr. Farquharson, M.P., said that scarlet fever could be transmitted from the cow, but he thought they would agree with the lecturer that all such diseases fell into insignificance before that terrible disease tuberculosis. He thought they should not rest until they had this disease included among those other diseases of animals which were mentioned in the Contagious Diseases (Animals) Act. Of course the communicability of the diseases of animals to man was raised to an acute point now, because it was now established that the bacilli of the human tuberculosis and the animal tuberculosis were the same. The prospect was really a terrible one. If this disease went on increasiug in the cow, and our people got poorer every year, he was afraid that the terrible disease of consumption would become more and more rife. Milk has been shown to be often swarming with bacilli, and now even the safe and simple egg, which they had thought safe because buttressed round by shell, was to be taken away from them. After the evidence that had been brought forward of the communicability of this disease, and the great variety of sources through which it might be communicated, he thought the adoption of some such resolution as that which had been proposed became necessary. It was their duty, holding such strong opinions as they did on the subject, to show the Government that they were in earnest, and to put upon them that little pressure which he had no doubt they would be very glad to get. He concluded by seconding the motion.

Professor Edgar Crookshank, King's College, London, pointed out that it had been known from the earliest times that certain diseases of the lower animals were communicable to man. In later years it had been shown that certain diseases, such as tuberculosis were communicable to the lower animals, but with the exception of hydrophobia insufficient attention had been paid to the diseases common to man and animals. Jenner was the first to draw attention to the diseases of the cow's udder. In his inquiry on cow-pox, Jenner led the way to the study of these diseases. The diseases under discussion might be divided in the present state of their knowledge into three classes. In the first m'ght be placed such diseases as cow-pox, foot-and-mouth disease, anthrax, and glanders, which never occurred in man independently of the disease in the lower animal. In the next class might be placed tuberculosis and actinomycosis, which possibly were communicated from the cow. He had heard it stated that the origin of the specific poison of human infectious fevers was a new and startling theory. It was startling but by no means new. The Arabians believed that smallpox originated from a disease of the camel, while Jenner believed that it arose from grease of the horse, and Henry Jenner maintained that cowpox was smallpox.

Dr. Buist, Edinburgh, said that Dr. Fleming, who should have opened the discussion, took up the position that the human and animal variety were specifically distinct diseases, and he did so on the ground that small-pox could not be communicated from man to the cow, although it might be communicated from man to the horse, and he said that

on that account he considered that the cowpox and smallpox were specifically distinct. He thought that the decision of this question of identity would be best settled by a study of the natural infective material and its effects. If this was difficult in such diseases as smallpox and cowpox, where the infective materials had definite effects, it was much more difficult in cases such as scarlatina, where the nature and effects of the infective material were indefinite. Infective materials were natural and cultivated, and the effects of these were very different. While in cowpox and variola the natural material produced local effects, cultivated materials produced no local effects but eruptions. This was seen in calves and monkeys, cultivated variola producing an eruption in the latter on the fifth day, or in half the time required by the natural material. The true infective material in vaccine and variolous lymph capable of reproducing the same disease was suspended in it in the embryonic condition. This was the bacteric form existing in these infective materials. Where the infective material was composed of bacilli, as in anthrax and tubercle, it was comparatively easy to trace disease from animals to man, but where their form was very minute and indefinite it was much more difficult. In illustration of this he referred to the opposing views of Dr. Klein and Professor Crookshank with regard to the Hendon cow disease and the Wiltshire cow disease. He did not think that in either case was the source of the material used for pure cultivation free from objection, because it was derived from the discharge and tiss of the ulcers instead of from the early crusts in which the infective material of both cow diseases would have most certainly been found. No definite conclusions could therefore be come to as to the nature of the cultivated infective materials in either.

Dr. Seaton, St. Thomas's Hospital, London, said it was a recognised fact that disease in the cow was related in some way or another to the disease that we call scarlet fever. (Cries of "No, no," and applause.) There was direct evidence, he contended, as to the possibility of milk communicating scarlet fever. That evidence rested upon the observation of some of the most accurate observers. The number of cases of scarlet fever attributed to milk had, of late years, been getting very large. These cases might have been divided into three classes—First of all there were the cases in which the milk had been admitted to be the cause of the disease, that was where the distribution of the disease coincided with the distribution of the milk, and there was some evidence that it might have been contaminated by human agency. Such an outbreak as that at Newcastle might be cited as an example of this kind. The second class of cases were those in which medical officers were wholly unable to find any sources of human contamination. In these cases no observations might have been made at all as to the possibility of the existence of disease among cows. Then came the third class of cases in which there was undo btedly a distribution of the disease coinciding with milk—the milk, that was to say, was the cause of the disease, no evidence of human contamination being discoverable—and at the same time there was disease in the udder of the cow. Under this last-head there were cases of which it was not enough to say that some human source of infection must have been overlooked. The evidence was very strong upon the point that there was no possibility of human infection, and in such cases it became the business of veterinarians to closely study the disease which was possibly the source of the specific infection.

Dr. Edington, Edinburgh, stated that he felt inclined to take exception to the remark of Dr. Farquharson that scarlet fever had been shown to be due to a disease in the cow. He held that there was no evidence, either pathological or otherwise, to show that such a hypothesis was at all tenable. He then referred to previous researches he had made, and stated that he had fouud the microcosms which he had before found in scarlet fever, and which the Edinburgh Medico-Chirurgical Scciety held were the same as Dr. Klein found in vaccine lymph. He did not consider that such an organism was in any way specifically related to the vaccinia. He thought it was only a contamination. He then showed that Professor Park, of New York, and Dr. Stickler, of New Jersey, had already corroborated the presence of his (Dr. Edington's) bacillus in scarlet fever, and the latter went further and produced in animals the same results as himself.

Professor M'Fadyean, Edinburgh, said that a very natural, though somewhat rough division of diseases that were communicable to man might be made into two clases—those that were due to macro-parasites, or animal parasites; and those that were due to micro-parasites, or vegetable parasites. Professor Walley had said that he would be inclined to place anthrax in the first position as a disorder communicable both to man and to animals. He (the speaker) thought that in one sense that was true, but in another sense it required to be stated with some reservatiou. Anthrax was common in the lower animals, but not very common in man. He had been anxious to get the history of cases of anthrax communicated to human beings by means of anthrax flesh, but he had not succeeded. That was not because anthrax flesh was not consumed, because wherever anthrax broke out the flesh was certain to be sold in the ordinary course and consumed. A previous speaker had said that he considered the fact that a disorder prevailed among cows that was capable of exciting scarlatina among human beings had been established. As one who had impartially followed both the direct and the indirect evidence that had been produced in this country within the last few years on the subject, he demurred to that statement. If he followed that speaker correctly, he said that where they had investigations conducted by medical officers of integrity and ability, who failed to discover any human contamination in the milk, they were almost forced to conclude that it had an animal source. Professor M'Fadyean maintained that there was not very much force in the reasoning, and he stated that he had had sent to him a report from the medical officer of health for Newcastle giving de-

tails of an outbreak of scarlatina there which showed that the officer had been unable to trace any connection between the milk supply and the outbreak of scarlatina. With regard to tuberculosis, he had worked at the disorder for a number of years, and he could certainly state, as the result of his observations, that tuberculosis was an extremely common disorder in cattle. He had taken measures to ascertain the prevalence of the disorder; and although in the districts in Scotland in which it was most prevalent it caused annually the loss of from 5 to 10 per cent. in dairy cattle, he was shocked to learn that in some districts there was a proportion of 50 per cent., and even 80 or 90 per cent., of animals killed for tuberculosis. He could hardly believe that statement. He thought there must be an error somewhere, because it was the fact that in other countries young animals had a considerable immunity from tuberculosis. He believed that the identity of human and bovine tuberculosis had been clearly established, though they had not direct evidence or proof that human beings might be infected from a bovine source, they had as nearly as possible such evidence. They had not complete evidence, because they could not take a human being and infect him with tubercular milk or meat.

Dr. M'Vail, Kilmarnock, having spoken,

Professor M'Call, Glasgow, expressed his agreement generally with Professor Walley, but said the only point upon which he was not so clear, was that tuberculosis might be propagated in the egg; in other words, he doubted if the organism was contained in the egg. In his own practice he had never seen any reason to corroborate that statement, but it did not follow that he was perfectly correct. Professor Walley had led them to understand that unless the udder of the cow was locally affected tuberculosis would not be transmitted. He (the speaker) differed very much from that view. Experiments had shown that the milk of an animal infected with tuberculosis, and whose udder was perfectly healthy, had transmitted the disease. That had been seen in more than one instance. Instead of 80 or 50 per cent., he thought 25 would be the utmost percentage of animals infected. He believed that cattle that were brought into cities and put into ill-ventilated byres were most liable to be affected. Where cattle were pastured or kept in well-ventilated byres the outbreaks of tuberculosis were few and far between. But when these same animals were brought into the city and tied up in byres with very imperfect ventilation the disease was very soon transmitted. Tuberculosis was a more infectious disease in cattle than consumption was in the human subject. Professor M'Call mentioned some experiments he had conducted in conjunction with Dr. Carmichael, of Glasgow, and, proceeding, said that in his opinion, scarlatina might be propagated by milk; but whether the organism which produced the disease was received from the cow, or was of human source, he was not prepared to say.

Dr. Hime, of Bradford, read a paper detailing facts from a large experience in Bradford, which, he maintained, proved beyond doubt that in that town, where scarlet fever had been severely epidemic, it could not possibly be attributed to infected milk. He argued that the official theory of the Local Government Board, that there was a well-marked disease of the cow which produced scarlet fever in man, was contraay to experience, and more particularly to that of Bradford. A few cases brought forward to prove this view was the whole evidence available. But he had the advantage of compulsory information as to the names of all customers from the local milkman. During 1887 he had collected the details of some 4000 persons connected with the spread of scarlet fever. Among this large number of persons in a town where scarlet fever was largely prevalent only nine cases of scarlet fever occurred in the year. But this was actually not half the proportion which should have occurred, so that one might even argue that these persons were actually less liable when they drank milk from infected homes than others—an absurd suggestion of course, but not much less so than the opposite view. Following up the cases at Bradford, Dr. Hime found that while scarlet fever existed in one dairy, not a case existed among the 1000 customers for three months, and altogether only one case occurred in the year. In another case nine cases of scarlet fever occurred among the customers of a milkman, but there was not a single case among all the persons at the dairy; and, further, neither in this dairy, nor in any of the others referred to by the speaker, were any of the cows ill. He concluded that if scarlet fever could be spread by milk, then the means of preventing the danger were so simple and so easy that the public alarm about infection being spread in this way was very unfounded. The existence of disease among cows which produced scarlet fever in human beings was quite unfounded in his opinion, and the cow had been blamed mainly because it was so easy and so gratifying to find some source of epidemic disease, that investigators were disposed to jump at a conclusion which would relieve them from apparently being unable to account for the disease; and again, and confessedly, because in many other cases there was difficulty in tracing any human source of the disease.

THE CENTRAL VETERINARY MEDICAL SOCIETY.

(FIRST NOTICE).

An ordinary general meeting of the above Society was held at the First Avenue Hotel, Holborn, on July 5th, when there were present twenty-two Fellows and two visitors.

Mr. Charles Sheather, the President of the Society, was in the chair. The minutes of the last meeting having been confirmed and the correspondence read, Mr. Dickinson, M.R.C.V.S., of Boston, Lincolnshire, was nominated for Fellowship of the Society by Mr. F. Wragg.

Mr. Henry Edgar in an able manner then gave details of some outbreaks of anthrax and chicken

cholera. In his first outbreak, in which several cattle and some sheep died, an adjoining tan-works where raw hides from all classes of cattle are washed and dressed was the source of the infection. A small stream of water ran from the tan-yard into the ditches from which the stock drank: several succeeding outbreaks occurred on this land, it was therefore discontinued as a pasture and converted into arable ground. By means of some manure from the same tan-works the disease was carried to an estate three miles distant where a valuable heifer died of anthrax.

In March, 1885, Mr. Edgar investigated an outbreak of anthrax in which a number of cattle and pigs were affected, Mr. Edgar gave the meeting details of the symptoms of the malady in both the cattle and swine, and entered fully into the post-mortem lesions and appearances. In this outbreak the probable source of infection was "Fish-bone manure," some of which was stored in the same building as the animals' fodder. In another outbreak, where a heifer had died suddenly and the blood from its spleen was teeming with *bacillus anthracis*, the only probable source of infection was again "Fish-bone Manure." He then alluded to two other outbreaks; in the first, where a bullock died, the water supply was foul; and in the other, where pigs were affected, the disease was probably introduced by some manure brought from London.

Mr. Edgar then gave details of a case of virulent blood-poisoning in a cow, arising from drinking water contaminated with the sewerage of the houses of a neighbouring town. In this case the post-mortem examination showed most of the lesions of anthrax, but the spleen was not enlarged and only one or two bacilli were found in a careful examination of the blood from all the organs.

In the seventh outbreak which he quoted, Mr. Edgar made a post-mortem examination of a heifer in which the spleen was engorged with blood containing an immense number of bacilli. The origin of this outbreak was probably some animal charcoal manure, which consists of the refuse of burnt blood, etc., used in sugar refineries.

Mr. Edgar then alluded to an outbreak of disease in fowls which occurred in the neighbourhood of Dartford in February or March last—out of 23 fowls on the premises, 13 became affected, of which 11 died and 2 were killed: the disease appeared quite suddenly without apparent cause and disappeared just as quickly. Mr. Edgar gave full details of the symptoms and post-mortem lesions, and compared them with those given by Renault, Reynal, and Delafond, also by Dr. Fleming in his "Veterinary Sanitary Science and Police," and concluded by suggesting that this was an outbreak of fowl cholera, and he believed the first reported outbreak of that disease in this country. He asked the opinion of the members of the Society, and enquired if any of them had met with similar cases.

Mr. Woodger said that about nine years ago he was consulted with reference to a number of fowls which had died at Shepherds Bush: he visited the premises and examined the living fowls and they did not show any symptoms of illness, he asked the owner to send him the next bird that died, and was surprised to have six of them sent to him next day—the post-mortem appearances of these were very similar to those which Mr. Edgar had described. Between eighty and ninety fowls were kept in a small fowl-house and altogether about half of them died as did also two geese that were kept in the yard; a sparrow also which had been observed flying about the premises dropped down dead. Suspecting the disease to be fowl cholera he took a little blood from one of the dead fowls on a needle and inoculated two pigeons with it, the next morning the pigeons were dead. The only difference he could see between the symptoms and those described by Mr. Edgar was that the fowls at Shepherds Bush were not ill above one hour or two. There was no means of accounting for this outbreak—no fresh fowls had been introduced for a long time. The fowls which remained alive were sent to a farm and none of them afterwards became affected.

Professor Axe noticed that of the several cases cited by Mr. Edgar there occurred in two of them a profuse discharge of blood from the alimentary canal, and in those cases the spleen was found on post-mortem inspection to be in a collapsed condition. He would like to point out that while acute swelling and apoplexy of the spleen were conditions commonly present in anthrax, a flaccid and collapsed state of the organ by no means contra-indicated that disease. It should be generally understood that the presence of a collapsed spleen was quite consistent with the existence of anthrax, many cases had been brought to his notice where veterinary surgeons had excluded anthrax on the simple ground of an absence of splenic enlargement. In his experience the state of collapse had frequently been observed in the spleen of animals affected by this disease where any considerable escape of blood from the bowels had been noticed during life. The explanation he thought would possibly be found in the fact of the direct relationship of the intestinal with the splenic vessels.

STUDENTS' COLUMN.

The prize for answers to questions in No. 4 of "The Record," has been awarded to Mr. G. R. Stallard, who came third in point of merit. The two better papers were sent by gentlemen who have "been more than two sessions at College."

We thought our conditions were sufficiently clear, but it is evident either that they have not been read or that the word "sessions" is very differently defined by some men. The questions have been carefully selected for their simplicity, and were considered suitable for pupils and first-year-men. We are compelled under the circumstances to alter our conditions, and must take time to determine under what conditions a "Students Column" is most likely to do any good. We shall either limit the Competition to pupils and one-term-students, or

throw it open to veterinary students of any age. If the latter, we must of course make the questions more indicative of merit, and then too, the prizes must be increased.

To the Editor of the VETERINARY RECORD,

Dear Sir,

I was very pleased to find that you had, in your new venture, recognised a class, whose existence had been ignored by any previous Veterinary periodical viz., the students.

At the same time, as regards your prizes, I think your first condition debars the majority of students from entering, and would suggest that, either that condition be removed or that a special competition for senior students be established, and also that the best answers—provided they be of sufficient merit—be published in order to benefit all classes of Veterinary Students.

Hoping the "Students Column" will be more and more appreciated, I beg to remain,

Your obedient servant, F. D. M.

CORRESPONDENCE.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

SIR,

I was glad to notice your editorial note respecting the Veterinary Surgeon's Act. I hope you may be the means of bringing the Council out of the somnolent state in which they have been ever since the Act was passed. We might endure seeing an ignorant lout registered and using the title of V.S. provided it ended there, but it does not. Personally I may say that I am surrounded by no less than six unqualified men all using the title of V.S., but only four are registered, one having the audacity to call himself a member of the Edinboro' Veterinary College and represent himself to be qualified, a great many people believing that he has taken the necessary degrees to qualify him.

What's to be done in such cases? No good comes of reporting the matter to the Council. It puts me very much in mind of the time when we were requested to get our objections against an applicant for registration drawn up in the form of an affidavit and forward to the Council. It benefited the lawyer, but no one else.

"VERAX."

"QUOT HOMINES, TOT SENTENTIÆ."

The following letters are representative of a number of others. We resist the temptation to offer comment.

DEAR SIR,

I have much pleasure in becoming a subscriber to your "weekly." It supplies a much needed want and if conducted with ordinary business capacity, must prosper. You have doubtless received many letters containing valuable hints and I cannot hope to suggest anything new, but I would urge upon your attention that well-written articles by old and successful practitioners are of great value to the country Vet.

Yours very sincerely,———

SIR,

As I have received three copies of the Veterinary Record, I enclose subscription for the present quarter. I do not wish to take it in after that period, being fully convinced that no "weekly" can possibly succeed, owing to the limited number in our profession, and to the fact that comparatively few of our members seem to care about either reading or contributing for others to read. I feel sure, although it seems a pity, that before many months, your paper will come to an end through failure in the supply of professional articles.

Yours faithfully, ———

DEAR SIR,

Thanks for copy of "The Record." Enclosed is P. O. O. for six months subscription. I will do what I can to help by sending some occasional contributions of cases in my practice, but just now I am too busy to write anything.

Yours truly, ——

Terms of Subscription.

Twelve months,	..	..	£0 15 0
Six ,,	..	..	0 7 6
Three ,,	..	..	0 3 9

Will Subscribers please notify the Publishers in case of not receiving "The Record," which is posted to Subscribers in time for the midnight mails on Friday. Notice of inaccuracies in, or change of address should also be sent to the Publishers, Messrs. H. & W. Brown, 20 Fulham Road, London, S.W.

Terms for Advertisements.

BUSINESS ANNOUNCEMENTS—

Whole page	..	..	..	£2 0 0
Half ,,	..	..	..	1 5 0
Quarter ,,	..	..	..	0 15 0
Back ,,	..	..	..	3 0 0
Half ,,	..	..	..	1 15 0
Front Half page	..	..	..	2 0 0

PROFESSIONAL REQUIREMENTS—

Five lines or under 2/6 (exclusive of heading) each line additional, 6d.—an average of eight words in a line.

REDUCED RATES for a series of insertions.

All communications respecting ADVERTISEMENTS *to be addressed to*

MESSRS. TINCKLER & McNAUGHT, 57 Charing Cross, London, S.W.

All communications to ensure insertion the same week should be delivered at the office not later than Tuesday.